

**Sen Finance FIN102 - I  
Practice Questions  
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**The following is for Questions 1 and 2: A project provides annual cash flows of \$5,000 forever and costs \$40,000 today.**

**Question 1) What is NPV if the required return is 7% per annum?**

- A) 22,585
- B) 27,287
- C) 29,533
- D) 31,429
- E) 32,520

**Question 2) At what rate of discount will the NPV be zero?**

- A) 5%
- B) 7%
- C) 7.5%
- D) 9.83%
- E) 12.5%

**The following is for questions 8 to 10: A project provides annual cash flows of \$10,000 for 8 years and costs \$46,388.64 today.**

**Question 3) What is the NPV if the required return is 7% per annum?**

- A) 13,324
- B) 14,594
- C) 15,558
- D) 16,321
- E) 17,533

**Question 4) What is the NPV if the required return is 9% per annum?**

- A) 6,895
- B) 7,278
- C) 8,191
- D) 8,960
- E) 9,358

**Question 5) At what discount rate will the NPV be zero?**

- A) 8.78%
- B) 9.29%
- C) 14%
- D) 15%
- E) 16.22%

**Question 6) For a sole proprietorship we have the benefits of:**

**Limited Liability Single (rather than double) taxation**

- A) Yes Yes
- B) Yes No
- C) No Yes
- D) No No

**Question 7) For a corporation we have the benefits of:**

**Easy ownership transfer and raising capital Single (rather than double) taxation**

- A) Yes Yes
- B) Yes No
- C) No Yes
- D) No No

**Information for Questions 8 to 11: SkyAirlines has spent \$3 million doing a feasibility study for studying the benefits of the new computer system. It has estimated that installing the computer system will cost \$15 million. It will be able to depreciate the cost equally over 5 years. It will result in savings of \$5 m a year for the 5 years. After this time is over, the computer system will be worthless (zero salvage value). The discount rate is 11% for SkyAirlines and the tax rate is 34%.**

**Question 8) What is the increase in yearly after-tax cash flows from installing the computer system (do not include initial investment)?**

- A) 4.02M
- B) 4.20M
- C) 4.32M
- D) 4.56M

**Question 9) What is the NPV of the project (now you need to consider initial investment)?**

- A) -2.034M
- B) -0.966M
- C) +0.966M
- D) +2.034M

**Question 10) Suppose the computer system also takes up office space that SkyAirlines owns and can otherwise rent for \$1M a year. (Note that if it receives this rent it has to pay tax on it). Taking this into account how much would the NPV change by? (Just the change, not the new NPV)**

- A) -2.439M
- B) -2.249M
- C) -1.989M
- D) -1.449M

**Question 11) Suppose the use of the computer system also requires an increase in Net Working Capital by \$2M. (This is recovered when the computer is scrapped after 5 years).**

**Taking this into account how much would the NPV change by? (Just the change, not the new NPV)**

- A) -0.5481**
- B) -0.6431**
- C) -0.7201**
- D) -0.8131**

**Information for Questions 12 to 16: You are thinking of starting a airplane leasing business. You have paid a consultant \$50,000 to do a market survey for you. She tells you that you can purchase an airplane for \$30M and lease it out for \$4M a year for the 12 years. (Assume yearly costs for running the business are small enough to be negligible). IRS allows you to straight line depreciate the entire cost of \$30M over 12 years for tax purposes (equal depreciation in all years). At the 12th year the book value (for tax purposes) of the airplane will be depreciated down to ZERO but you forecast that it will be sold for \$5M (though you do not tell that to the IRS today). The tax rate is 40% and the discount rate for you for undertaking such a project is 9%.**

**Question 12: What will be the yearly depreciation?**

- A) \$0**
- B) \$1M**
- C) \$2.5M**
- D) \$30M**

**Question 13) What will be the yearly EBIT (Earnings before Interest and Taxes)?**

- A) \$1M**
- B) \$1.5M**
- C) \$2M**
- D) \$2.5M**

**Question 14) What will be the yearly taxes you will pay for the first 11 years?**

- A) 0.3M**
- B) 0.4M**
- C) 0.5M**
- D) 0.6M**

**Question 15) What will be your yearly Net Income for the first 11 years?**

- A) 0.8M
- B) 0.9M
- C) 1.0M
- D) 1.1M

**Question 16) What will be your Cash Flow (money produced by the firm that can be paid to investors) for the first 11 years?**

- A) 3.6M
- B) 3.9M
- C) 6.6M
- D) 6.9M

**Question 17) What will be your Cash Flow (money produced by the firm that can be paid to investors) for the 12th year?**

- A) 3.4M
- B) 3.8M
- C) 6.4M
- D) 6.8M

**Question 18) What will be the NPV of the project?**

- A) -\$4.59M
- B) -\$2.33M
- C) +\$2.33M
- D) +4.59M

**Answer Key:**

- 1) D
- 2) E
- 3) A
- 4) D
- 5) C
- 6) C
- 7) B
- 8) C
- 9) C
- 10) A
- 11) D
- 12) C
- 13) B
- 14) D
- 15) B

- 16) E**
- 17) C**
- 18) A**

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